

Docket No. 206333US0X PCT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: Masahiro KITAYAMA, et al.

SERIAL NO: 09/857,865

GAU: 1714

FILED: June 12, 2001

EXAMINER:

FOR: FLAME-RETARDANT POLYCARBONATE RESIN COMPOSITION AND MOLDED ARTICLES

# 9/601  
04/2/03

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97

ASSISTANT COMMISSIONER FOR PATENTS  
WASHINGTON, D.C. 20231

SIR:

Applicant(s) wish to disclose the following information.

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REFERENCES

- ☐ The applicant(s) wish to make of record the references listed on the attached form PTO-1449. Copies of the listed references are attached, where required, as are either statements of relevancy or any readily available English translations of pertinent portions of any non-English language references.
- ☐ A check is attached in the amount required under 37 CFR §1.17(p).

RELATED CASES

- ☒ Attached is a list of applicant's pending application(s) which may be related to the present application. A copy of the claims and drawings of the pending application(s) is attached.
- ☐ A check is attached in the amount required under 37 CFR §1.17(p).

CERTIFICATION

- ☐ Each item of information contained in this information disclosure statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
- ☐ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.

DEPOSIT ACCOUNT

- ☒ Please charge any additional fees for the papers being filed herewith and for which no check is enclosed herewith, or credit any overpayment to deposit account number 15-0030. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.

Norman F. Oblon

Registration No. 24,618



22850

Tel. (703) 413-3000  
Fax. (703) 413-2220  
(OSMMN 03/02)

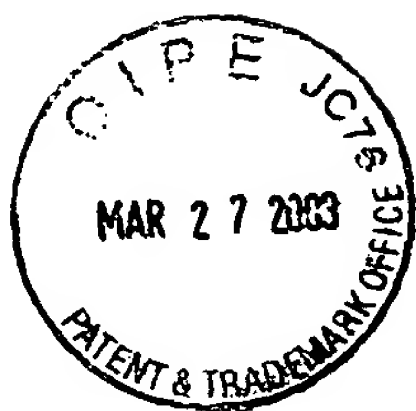
Rohitha M. Jayasuriya  
Registration No. 50,385



LIST OF RELATED CASES

<u>Docket Number</u>	<u>Serial or Patent Number</u>	<u>Filing or Issue Date</u>	<u>Inventor/ Applicant</u>
206333US0X PCT*	09/857,865	06/12/01	KITAYAMA, et al.
215299US0X PCT	09/926,614	11/26/01	ISOZAKI

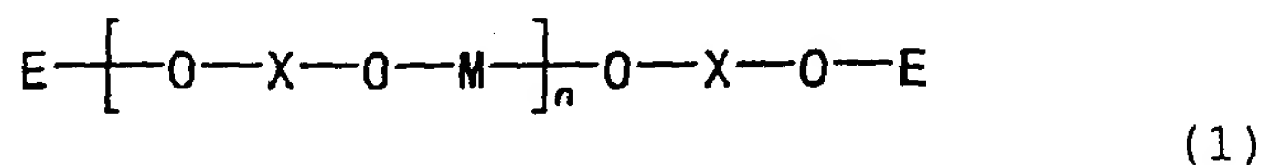
\*Present Application; listed for information



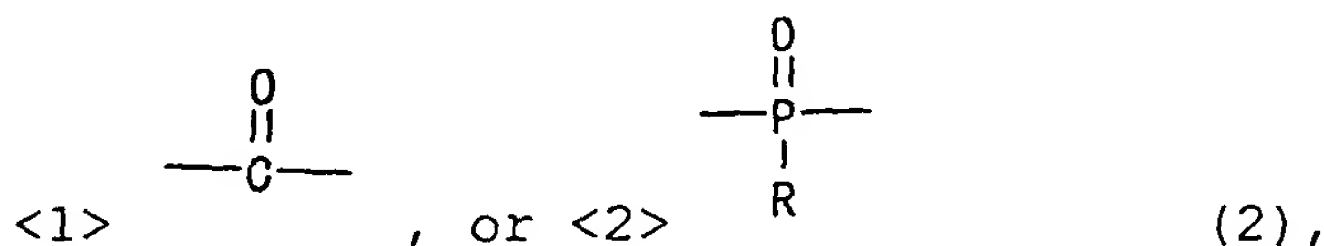
# CLAIMS

1. A flame-retardant polycarbonate resin composition which comprises a resin mixture of (A) from 60 to 99 % by mass of a polycarbonate resin and (B) from 1 to 40 % by mass of a polycarbonate copolymer having phosphorus atoms in its main chain, and contains (C) from 0.02 to 5 parts by mass, relative to 100 parts by mass of the resin mixture, of an anti-dripping agent.

2. The flame-retardant polycarbonate resin composition as claimed in claim 1, wherein the polycarbonate copolymer (B) that has phosphorus atoms in its main chain is an organic phosphate-containing polycarbonate copolymer of the following formula (1):



in which X represents a dihydroxy-aromatic residue; E represents a hydrogen atom, or -M-O-Ar; Ar represents an optionally-substituted aryl group; M represents a bonding part of the following formula (2):



R is selected from an alkyl group having from 1 to 15 carbon atoms, an aryl group having from 6 to 14 carbon atoms, an alkoxy group having from 1 to 30 carbon atoms, and an aryloxy group

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having from 6 to 14 carbon atoms; the molar ratio of the bonding parts <1> to <2> falls between 95/5 and 5/95; and n falls between 20 and 400.

3. The flame-retardant polycarbonate resin composition as claimed in claim 1 or 2, wherein the anti-dripping agent (C) is at least one member selected from the group consisting of fluororesins, silicone resins and phenolic resins.

4. The flame-retardant polycarbonate resin composition as claimed in any of claims 1 to 3, which further contains (D) from 1 to 30 parts by mass of a rubbery polymer, relative to 100 parts by mass of the resin mixture of (A) and (B) therein.

5. The flame-retardant polycarbonate resin composition as claimed in claim 4, wherein the rubbery polymer (D) is a core/shell-type, grafted rubbery polymer.

6. The flame-retardant polycarbonate resin composition as claimed in any of claims 1 to 5, which further contains (E) from 1 to 40 parts by mass of a styrene resin, relative to 100 parts by mass of the resin mixture of (A) and (B) therein.

7. The flame-retardant polycarbonate resin composition as claimed in any of claims 1 to 6, which further contains (F) from 1 to 100 parts by mass of an inorganic filler, relative to 100 parts by mass of the resin mixture of (A) and (B) therein.

8. Moldings of the flame-retardant polycarbonate resin composition of any of claims 1 to 7.

9. Moldings as claimed in claim 8, which are for housings

or parts of electric and electronic appliances.

10. Moldings as claimed in claim 8, which are for parts of development units, fixation units and paper receiver units of duplicators or printers.

# ABSTRACT

Provided is a non-halogen, flame-retardant polycarbonate resin composition that comprises a resin mixture of (A) from 60 to 99 % by mass of a polycarbonate resin and (B) from 1 to 40 % by mass of a polycarbonate copolymer having phosphorus atoms in its main chain, and contains (C) from 0.02 to 5 parts by mass, relative to 100 parts by mass of the resin mixture, of an anti-dripping agent. Also provided are moldings of the composition. The polycarbonate copolymer (B) that has phosphorus atoms in its main chain is typically a polycarbonate copolymer of which the repetitive structural units contain an aromatic organophosphate component. The resin moldings have good impact resistance, good heat resistance and high stiffness intrinsic to polycarbonate resin. Not depositing on the wall of molds, the melt of the resin composition is well flowable and is stably molded into high-quality moldings having good appearance, and its long-run workability is good.